

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re of Application of: **S. Rodaway et al.**

Serial No.: **09/498,949**

Examiner: **Christian L. Fronda**

Filed: **February 4, 2000**

Group No.: **1652**

For: **Tryptophan Synthase As A Site of Herbicide Action**

Assistant Commissioner for Patents
Washington, DC 20231

January 29, 2002

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Sir:

FILING RECEIPT

Here are the following papers:

- a. Supplemental Information Disclosure Statement;
- b. Form PTO-1449 in duplicate;
- c. Copies of the twenty-five references listed on PTO-1449; and
- d. Change of Correspondence Address

The PTO is respectfully requested to date stamp the duplicate copy of this receipt and return it to the person filing the papers.

Respectfully submitted,



Charles F. Costello

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BASF Corporation
3000 Continental Drive - North
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Tel. No. (609) 716-3273

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Supplemental Information Disclosure Statement

1. Preliminary Statements

In accordance with 37 CFR 1.97 and 1.98, Applicants submit herewith patents, publications, or other information of which they are aware, which they believe may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR 1.56. This Information Disclosure Statement is not to be construed as a representation that: (i) a search has been made; (ii) the information is material to the examination of this application; (iii) additional information material to the examination of this application does not exist; (iv) the information, protocols, results and the like reported by third parties are accurate or enabling; or (v) the information constitutes prior art to the subject invention.

2. Identification of Time of Filing

This Information Disclosure Statement

- a. ☐ is filed within three months of the filing date of the application.
- b. ☐ is filed before the mailing date of a first Office Action on the merits.
- c. ☒ is filed after the period specified in 2(a) or 2(b) above, but before the mailing date of a final action under 37 CFR 1.311. This statement includes a certification under 37 CFR 1.97(e) or the fee set forth in 37 CFR 1.17(p).
- d. ☐ is filed after the mailing date of a final action or Notice of Allowance but before payment of the issue fee. This statement includes (i) a certification under 37 CFR 1.97(e), (ii) a petition requesting consideration of this information disclosure statement, and (iii) the petition fee under 37 CFR 1.17(i) (1).

3. ☐ Certification under 37 CFR 1.97(e)
The undersigned attorney certifies
- a. ☐ that each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the statement, or
- b. ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the statement.
- c. Conditional Petition: If this Information Disclosure Statement specifies the time of filing as 2(c) above, but in fact it is filed after the mailing date of a final action or Notice of Allowance, please consider this a petition requesting consideration of the information and authorization to charge Deposit Account 02-1197 for the petition fee."
4. ☒ Newly Cited Information
A legible copy of the patents, publications or other information cited on the attached form PTO 1449 is enclosed, except that no copy of a pending U.S. application is enclosed.
5. ☐ Previously Cited Information
No copy of the patents, publications or other information cited on the attached form PTO-1449 is enclosed because it has been previously cited by or submitted to the Office in a prior application which is relied upon for an earlier filing date under 35 USC 120.
Prior application is Serial Number , filed on of for .
6. ☐ Concise Explanation
Documents cited above which are not in the English Language
- a. ☐ have been explained in the specification.
- b. ☐ have an abstract (or other concise explanation) in English enclosed or if readily available a translation into English of the document is enclosed.
7. Form PTO-1449 is enclosed in duplicate.
8. ☐ A petition requesting consideration of this information disclosure statement is enclosed.

9. ☒ Fees
- | | | | | |
|----|--|----------------|----|--------|
| a. | <input checked="" type="checkbox"/> late filing (37 CFR 1.17(p)) | Fee: | \$ | 180.00 |
| b. | <input type="checkbox"/> Petition (37 CFR 1.17(i) (1)) | Fee: | \$ | 130.00 |
| | | Total Fee Due: | \$ | 180.00 |

10. Method of Payment of Fees:
Charge Deposit Account No. **02-1197** in the amount of **\$180.00**
A duplicate of this statement is enclosed.

11. Instructions as to Overpayment/Underpayment:
Credit any overpayment and charge any underpayment to Deposit Account
No. **02-1197**.

Date: January 29, 2002 C. Costello
Charles F. Costello

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LIST OF PATENT AND PUBLICATION FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (USE SEVERAL SHEETS IF NECESSARY)	Atty. Docket No. ACY33555-00	Serial No. 09/498,949
	Applicant(s) Rodaway et al.	Examiner: Christian F. Fronda
	Filing Date: 02/04/2000	Group: 1652

US PATENT DOCUMENTS

Examiner Initial		Doc. No.	Date	Name	Class	Sub-Class	Filing Date
	AA						
	AB						

FOREIGN PATENT DOCUMENTS

Examiner Initial		Doc. No.	Date	Country	Class	Sub-Class	Translation Yes No
	AC						
	AD						
	AE						

OTHER ART (Including author, title, date, pertinent pages, etc.)

	AF	Smith et al., Methods in Enzymology, vol. V. pp 794-806 (1962)
	AG	Creighton et al., Methods in Enzymology, vol. XVIII, pp. 365-380 (1970)
	AH	Hardman et al, "Studies on the Active Site of the A Protein Subunit of the Escherichia coli Tryptophan Synthase", J. Biol. Chem. Vol. 240, pp. 725-732 (1965)
	AI	Creighton et al., "Association of the α and β_2 Subunits of the Tryptophan Synthetase of Escherichia coli", J. of Biol. Chem., Vol. 241, pp980-990 (1966)
	AJ	E. Miles, "The B Protein of Escherichia coli Tryptophan Synthase", J. of Biol. Chem., Vol. 245, pp. 6016-1625 (1970)
	AK	Freedberg et al., "Structural and Functional Roles of the Cysteine Residues in the α Subunit of the Escherichia coli Tryptophan Synthetase, J. of Biol. Chem., Vol. 246, pp. 1449-1456 (1971)
	AL	Miles et al., "An Active $\alpha_2\beta_2$ Derivative of Tryptophan Synthase Formed by Limited Proteolysis, J. of Biol. Chem., Vol 253, pp. 6266-6269 (1978)
	AM	Smith et al., "Intermediates in the Biosynthesis of Tryptophan", Methods In Enzymology, Vol. VI, pp. 590-597 (1963)
	AN	T. Creighton, "A Steady-State Kinetic Investigation of the Reaction Mechanism of the Tryptophan Synthetase of Escherichia coli", Eur. J. Biochem. Vol. 13, pp. 1-10 (1970)
	AO	Hodel et al., "Model Bias in Macromolecular Crystal Structures", Acta Crystallogr. Vol. A48, pp. 851-858 (1992)

Examiner:

Date Considered:

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPRP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

LIST OF PATENT AND PUBLICATION FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (USE SEVERAL SHEETS IF NECESSARY)	Atty. Docket No. ACY33555-00	Serial No. 09/498,949
	Applicant(s) Rodaway et al.	
	Filing Date: 02/04/2000	Group: 1643

OTHER ART (Including author, title, date, pertinent pages, etc.)

	AP	D. Martin, "Physical Properties Of Dimethyl sulphoxide", Dimethyl Sulfoxide, 1971, pp. 49-60
	AQ	McAlpine et al., "The High Resolution Crystal Structure of DMSO Reductase in Complex with DMS), J. Mol. Biol. Vol. 274, pp. 613-623 (1998)
	AR	Kim et al., "Crystal Structure of the Complex of Carboxypeptidase A with a Strongly Bound Phosphonate in a New Crystalline Form: Comparison with Structures of Other Complexes", Biochemistry, Vol. 29, pp. 5546-5555 (1990)
	AS	Kim et al., "Comparison of the Structures of Three Carboxypeptidase A-Phosphonate Complexes Determined by X-ray Crystallography", Biochemistry, Vol. 30, pp. 8171-8180 (1991)
	AT	Holden et al., "Slow- and Fast-Binding Inhibitors of Thermolysin Display Different Modes of Binding: Crystallographic Analysis of Extended Phosphoramidate Transition-State Analogues", Biochemistry, Vol. 26, pp. 8542-8553 (1987)
	AU	Tronrud et al., "Crystallographic Structural Analysis of Phosphoramidates as Inhibitors And Transition-State Analogs of Thermolysin", Eur. J. Biochem, Vol. 157, pp. 261-268 (1986)
	AW	Fraser et al., "Crystallographic Analysis of Transition-State Mimics Bound to Penicillopepsin Phosphorous-Containing Peptide Analgues, "Biochemistry, Vol. 31, pp. 5201-5214 (1992)
	AX	Abdel-Meguid et al., "Inhibition of Human Immunodeficiency Virus-1 Proteaseby a C ₂ -Symmetric Phosphinate. Synthesis and Crystallographic Analysis", Biochemistry, Vol. 32, pp. 7972-7980 (1993)
	AY	C. Dealwis, X-ray Crystallographic Analysis Of Aspartic Poteinases And Their Inhibitor Complexes, "The Structure of PD-130328 Complexed With Endothiaepsin", Chapter 3, pp 51-79. Thesis, Birkbeck College, 1993
	AZ	Xiang et al., "Transition-State Selectivity for a Single Hydroxyl Group during Catalysis by Cytidine Deaminase", Biochemistry, Vol. 34, 1995, pp. 4516-4523
	BA	Strynadka et al, "Lysozyme Revisited: Crystallographic Evidence For Distortion of an N-Acetylmuramic Acid Residue Bound in Site D", J. Mol. Biol. Vol. 220, (1991) pp. 401-424
	BB	Hyde et al., "Three Dimensional Structure of the Tryptophan Synthase $\alpha_2\beta_2$ Multienzyme Complex from Salmonella Typhimurium", J. Bio. Chem., Vol. 263, Nov. 1988, pp. 17857-17871
	BC	Ott et al., "Rational Molecular Design and Genetic Engineering of Herbicide Resistant Crops By Structure Modeling And Site-Directed Mutagensis of Acetohydroxyacid Synthase", J. Mol. Biol. Vol 263, 1996 pp. 359-368
	BD	Radwanski et al., "Arabidopsis Thaliana Tryptophan Synthase Alpha: Gene Cloning, Expression, And Subunit Interaction", Mol Gen Genet Vol. 248, 1995, pp. 657-667
	BE	Berlyn et al., "A Gene Encoding The Tryptophan Synthase β Subunit of Arabidopsis Thaliana", Proc. Natl. Acad. Sci, USA, Vol. 86, June 1989 pp. 4604-4608.

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